MINUTES

Roadway CADD Users Group Meeting
June 20, 2012

In attendance

CADD Support: Jim McMellon, Oak Thammavong, and Dean Noland

CADD Representatives: **Brew:** Kevin Aldridge; **BMoore:** Piotr Stojda , Kanchana Noland; **Goodnight:** Dennis Lowery, Vasim Barodawala; **Lovering:** Sonya Tankersley; **Patel:** Paul Rochester; **Speer:** Travis Potts; **Houser:** Chris Lee; **JMoore:** Sherri Calhoun, Robert O'dell;

Other Attendees: Bryan Edwards (NCDOT CADD Services)

Discussion

Before starting, Bryan Edwards informed the group that CADD IT offers an "Introduction" and "Intermediate" Corridor Modeling class which is held once enough people have signed up. You can find more information on these classes at:

https://inside.ncdot.gov/Forms%20Documents%20%20Manuals/Departments/IT/CADD/CADDTrainingRequestForm.pdf

Bryan's group has also posted a lot of instructional CADD training videos on many topics including CM at:

https://inside.ncdot.gov/Business/technology/Pages/Tech-CADD-Trn-Videos.aspx

In preparation of the meeting, a request was sent to the each representative asking them to poll their group for topics of discussion in advance geared specifically to Corridor Modeling.

1. Expected response time on support requests: Most request for support thru the use of support forms are under 20 minutes depending on the time of day and type of question. We can only monitor and track support request thru the use of the forms. Each form is geared to ask certain questions depending on the request as to help speed up the time required. Discussion of each group representative being the first line of support or adding them to the support ticket email could help. We will decide which method is preferred by the group and send out an email updating every one of the change in procedure.

2. Corridor Modeling File Management : Please refer to the website on this topic under Corridor Modeling File Management. This will vary as software updates continuously add flexibility. For now:

    i. XSC/XPL files in the Corridor Modeling folder . We recommend leaving them in the CM folder where they are created. While other units may look in our xsc folder, we will have to inform them of the new location. (Since this meeting, it has been recommended that we place a text file in the xsc folder named "XSC files located in Corridor Modeling folder" with the same wording placed in the document. This will alert a user to look in the CM folder. A copy of this file is located in the Roadway workspace under "Standards\data".
    ii. DSN and other import graphics files in original Proj folder. Do not store graphics while in any file unless it is in the CM folder. Create CDM_2D.DGN if necessary.
    iii. GPK in the GPK folder (sometime have to create "backup" folder if other GPK files are corrupted.
    iv. Store graphics files should always link to "/CorridorModeling/" RDDBS folder.
    v. Converted existing TIN to DTM should be set to the "/CorridorModeling/" folder.

3. Who is using the model beside us? We are currently working with Hydro on a few projects that have been modeled and gone to Hydro. We are trying to determine the best method for project flow and exchanging files and information. We are also working with the Construction Unit & Location-Surveys with a few contractors to determine best method for file type format and type of information included in the delivery. Utilities has also provided very positive feedback on our models as they always have had to create them from our x-sections.

4. Latest SS3 updates: Microstation SS3 was released in the fall of 2011. The Civil (Geopak part of MicroStation) SS3 Beta was released a couple of weeks ago for testing. Anticipated Civil SS3 official release in the fall/winter of 2012. We anticipate the official release of Microstation/Civil SS3 "Refresh" release and installed in spring/summer of 2013. Corridor Modeling dialog box and Roadway Designer will not be used in SS3 as we move to Civil Geometry. 3D Model definition changes to the 3D DGN file. Civil Geometry training to start. Civil Cell Libraries to be developed.

5. Latest Superstreet information: several more templates are under development which will aid superstreet designs. They focus on median crossovers, bulb-type u-turns, inside turn lanes and crossing over to other side of the centerline and breaking pavement supers. SS3 should be able handle superstreet design modeling a lot more efficiently. It was mentioned that using selection set was helpful for plan graphics on divided facilities.

6. Gore area design for interchanges: Roadway Designer Gore Tools will go away with SS3. We've asked Bentley to retain the design aspect of the Gore Tools as it helps us come up with the proposed ramp/loop profile and super. For cross sections, we recommend to cut cross sections with full ramp and loop templates. Delete the part of the proposed template you don't need in the XSC (just like Criteria). Then manually fix the subgrade line for earthwork. **Or** modify the ramp/loop template by deleting the half you don't need. Use point controls to tie the edge of the ramp/loop pavement to the mainline pavement. Manually fix the subgrade line for earthwork. Go through the On-site detour exercises to gain knowledge of key methods such as target aliasing and point controls to accomplish this.

7. MicroStation crashes when processing create surfaces: Mostly happens when a component has been deleted from template doing a single station edit or end condition exception. Also if it's graphically intensive IRD file (corruption). Spiral graphics are known to hang it up. On a side note, please reload the RDP and GPK file every time you launch Corridor Modeling. Even though the GPK "RDY" and the settings look the same as the last time you were in Corridor Modeling, it may have been from another TIP. This has a high chance of chain "L" from one GPK is not found another "L" GPK. Also try to limit MicroStation to one open session when using Corridor Modeling to minimize corruption with resource files.

8. End conditions do not connect to existing ground created by TIN: They should. Make sure you are using an end condition and not a component type element. Also make sure you're cutting cross section where you have template drops. See chapter 5 "Applying End Condition Exceptions" exercises to see what is different. Travis submitted a project to Bryan where the template drops were in the correct locations. Bryan submitted it to Bentley which they verified as a known bug. For now, you will have to modify your earthwork tolerances to jump the gap or modify the sections by hand for earthwork.

9. Edit ECE window does not rotate (points are on top of each other and hard to differentiate): Right mouse click on the point and choose "Move Template" to rotate the points and template around.

10. A few other items from the agenda are not covered in the minutes because they are already in the Corridor Modeling Q&A knowledge base website which is highly recommended for everyone to review before submitting troubleshoot tickets.

Other Items Discussed

Oak informed everyone that he is creating **a** simple **"basic"** templates for each typical that do**es** not target anything and then a second template that is a "typical**" template which** will target fill height's and **2D graphics**. Basic templates are used to help beginners understand what how templates work without the advance capabilities. There will also be the other variations that are added over time that are more complex with modifications of the template. Oak is also adding links to the help menu with each template that will allow the user to click on when they have questions about individual templates. This process has been slowed down while IT is moving our website over to SharePoint and limited changes for the next few months.

There was some discussion on round-abouts and what needs to be shown in the model. Different project groups tend to show more information than other groups. Some show x-sections while others do not. There are ways to model a round-about but it comes down to how much time one is willing to invest in creating the model. This led to the next discussion of expectations.

We are working on developing a guide or examples of what to expect from the model and how much time should be put into fine tuning the model. It is true that a model can be created that is close to what is expected. But fine tuning certain area's (which would be part of the guide mentioned above) can require extensive amounts of time with little return on investment. Until we migrate to the next version which will help ease some of time required, everyone should understand that we are still calculating earthwork by cross sections. We will discuss this "level of expectations" with the front office and get some examples that should help define where not to spend too much time fine tuning.

We also discussed an error that is some folks receive from time to time when opening Corridor Modeling "Cannot open LandXML". This error is discussed and shown how to fix on the CM Q&A website under LandXML error message.

The final topic discussed was more about file management when receiving files from PEF's. Specifically PEF's unable to use the R: drive and its effects on the .ird file and plan graphics. Topic #2 from the agenda addresses this topic.